

What is claimed is:

1. A method for enhancing cerebral blood flow in a patient, comprising the steps of:

measuring a baseline cerebral blood flow;

5 inserting a first expandable member into at least one of a right femoral artery and/or a right iliac artery and expanding the first expandable member to at least partially obstruct the at least one right femoral artery and/or right iliac artery;

10 inserting a second expandable member into at least one of a left femoral artery and/or a left iliac artery and expanding the second expandable member to at least partially obstruct the at least one left femoral artery and/or left iliac artery;

measuring an enhanced cerebral blood flow after the at least partial obstruction of the right and left femoral artery and/or iliac artery; and

15 comparing the enhanced cerebral blood flow to the baseline cerebral blood flow.

2. The method of claim 1, further comprising the step of adjusting the level of obstruction of the right femoral artery and/or the left femoral artery to achieve a desired increase in cerebral blood flow.

20 3. The method of claim 2, wherein the desired increase in cerebral blood flow is 25 percent or more.

4. The method of claim 1, further comprising the step of adjusting the level

of obstruction of the right iliac artery and/or the left iliac artery to achieve a desired increase in cerebral blood flow.

5 5. The method of claim 1, wherein the first and second expandable members are balloons.

10 6. The method of claim 1, wherein at least one of the first and second expandable members is expanded to fully obstruct at least one of the right femoral artery and/or the right iliac artery.

15 7. The method of claim 1, further comprising the step of measuring blood pressure in the femoral or iliac arteries using a manometer mounted distal to the expandable members.

20 8. The method of claim 1, wherein the expandable members communicate with inflation lumens.

9. A method for enhancing cerebral blood flow in a patient, comprising the steps of:

measuring a baseline cerebral blood flow;

compressing at least one of a right femoral artery and/or a right iliac artery

5 to at least partially obstruct at least one right femoral artery and/or right iliac artery;

compressing at least one of a left femoral artery and/or a left iliac artery to at least partially obstruct at least one left femoral artery and/or left iliac artery;

measuring an enhanced cerebral blood flow after the steps of compressing the right and left femoral artery and/or iliac artery; and

10 comparing the enhanced cerebral blood flow to the baseline cerebral blood flow.

10. The method of claim 9, further comprising the step of adjusting the level of compression of the right femoral artery and/or the left femoral artery to achieve a
15 desired increase in cerebral blood flow.

11. The method of claim 9, further comprising the step of adjusting the level of compression of the right iliac artery and/or the left iliac artery to achieve a desired increase in cerebral blood flow.

12. The method of claim 11, wherein the desired increase in cerebral blood flow is 25 percent or more.

13. The method of claim 9, wherein the steps of compressing are achieved by applying C-clamps on the femoral or iliac arteries.

14. The method of claim 9, wherein the steps of compressing are achieved by
5 applying tourniquets on the femoral or iliac arteries.

15. A method for enhancing cerebral blood flow in a patient, comprising the steps of:

measuring a baseline cerebral blood flow;

10 inserting an expandable member into the inferior vena cava and expanding the expandable member to at least partially obstruct the inferior vena cava;

measuring an enhanced cerebral blood flow after the at least partial obstruction of the inferior vena cava; and

15 comparing the enhanced cerebral blood flow to the baseline cerebral blood flow.

16. The method of claim 15, further comprising the step of adjusting the level of obstruction of the inferior vena cava to achieve a desired increase in cerebral blood flow.

17. The method of claim 16, wherein the desired increase in cerebral blood flow is 25 percent or more.

18. The method of claim 15, wherein the expandable member is a balloon.

19. The method of claim 14, wherein the expandable member communicates with an inflation lumen.

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20. A method for enhancing cerebral blood flow in a patient, comprising the steps of:

measuring a baseline cerebral blood flow;

placing the patient in a trendelenberg position at an angle from horizontal;

measuring an enhanced cerebral blood flow after placing the patient in the trendelenberg position; and

comparing the enhanced cerebral blood flow to the baseline cerebral blood flow.

21. The method of claim 20, further comprising the step of adjusting the angle of the patient to achieve a desired increase in cerebral blood flow.

22. The method of claim 21, wherein the desired increase in cerebral blood flow is 25 percent or more.

23. A method for enhancing cerebral blood flow in a patient, comprising the steps of:

measuring a baseline cerebral blood flow;

removing a portion of cerebral spinal fluid from the patient;

measuring an enhanced cerebral blood flow after removing a portion of the cerebral spinal fluid; and

comparing the enhanced cerebral blood flow to the baseline cerebral blood flow.

24. The method of claim 23, further comprising the step of removing a second portion of cerebral spinal fluid to achieve a desired increase in cerebral blood flow.

25. The method of claim 23, wherein cerebral spinal fluid is removed through a lumbar puncture.

26. The method of claim 23, wherein cerebral spinal fluid is removed through a burr hole.

27. The method of claim 23, wherein cerebral spinal fluid is removed through puncture in the cerebellomedullary cistern.

28. The method of claim 23, wherein the portion comprises 10 cc of cerebral spinal fluid or more.

29. The method of claim 23, wherein the portion comprises 15 cc of cerebral spinal fluid or more.

30. The method of claim 9, wherein the step of compressing at least one of a right femoral artery and/or a right iliac artery to at least partially obstruct at least one right femoral artery and/or right iliac artery is achieved by an external compression member applied to the outer surface of a right leg, and wherein the step of compressing at least one of a left femoral artery and/or a left iliac artery to at least partially obstruct at least one left femoral artery and/or left iliac artery is achieved by an external compression member applied to the outer surface of a left leg.

31. A method for enhancing cerebral blood flow in a patient, comprising the steps of:

measuring a baseline cerebral blood flow;

applying a compression member to one or more extremity of the patient to compress the patient's peripheral vessels in the one or more extremity;

measuring an enhanced cerebral blood flow after compressing the vessels in the one or more extremity; and

comparing the enhanced cerebral blood flow to the baseline cerebral blood flow.

32. The method of claim 31, wherein the one or more extremity of the patient is one or both legs, and wherein the compression member comprises compression pants.

33. The method of claim 32, further comprising the step of applying compression cuffs to one or both arms of the patient to compress the patient's peripheral vessels in the one or both arms.

5 34. The method of claim 31, wherein the one or more extremity of the patient is one or both arms, and wherein the compression member comprises one or more compression cuffs.

10 35. The method of claim 34, further comprising the step of applying compression pants to one or both legs of the patient to compress the patient's peripheral vessels in the one or both legs.

15 36. The method of claim 31, further comprising the step of adjusting the compression to achieve a desired increase in cerebral blood flow.

37. The method of claim 36, wherein the desired increase in cerebral blood flow is 25 percent or more.

20 38. The method of claim 31, wherein the compression member is applied to one or more extremity of the patient and activated to compress the patient's peripheral vessels in the one or more extremity in a timed sequence relative to the heartbeat.

39. A method for enhancing cerebral blood flow in a patient, comprising the steps of:

measuring a baseline cerebral blood flow;

inserting an expandable member into an esophagus and positioning the

expandable member at a region of the esophagus adjacent the descending aorta;

expanding the expandable member to at least partially compress the descending aorta;

measuring an enhanced cerebral blood flow after the at least partial compression of the descending aorta; and

comparing the enhanced cerebral blood flow to the baseline cerebral blood flow.

40. The method of claim 39, wherein the expandable member comprises an elongate catheter having a proximal end, a distal end, and a balloon disposed about a distal region.

41. The method of claim 39, wherein the expandable member is positioned with fluoroscopic guidance.

42. The method of claim 39, further comprising the step of adjusting the level of compression of the descending aorta to achieve a desired increase in cerebral blood flow.

43. The method of claim 39, wherein the desired increase in cerebral blood flow is 25 percent or more.